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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,959	10/28/2003	Myung Ryul Lee	P24485	4559
7055	7590	07/30/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			DOERRLER, WILLIAM CHARLES	
			ART UNIT	PAPER NUMBER
			3744	

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,959

Applicant(s)

LEE ET AL.

Examiner

William Doerrler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Foreign Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Abstract

2. The abstract of the disclosure is objected to because of grammatical mistakes throughout such as: "Quick cooling device is disclosed for quick cooling of canned or bottled drink from a room temperature, quickly" (page 32, line 1). "A case has an inside space divided into a cavity and a device chamber, a door is provided on a front part of the case for opening/closing the cavity" (page 32, line 2). Correction is required. See MPEP § 608.01(b).

Specification

3. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: "However, the cooling of drink in the refrigerator from the room temperature requires at least a few tens of minutes to more than an hour" (page 2, line 9). Paragraph 10 on page 3 within the section on a summary of the invention is a run-on sentence. Here are some other sentences with

grammatical mistakes as well as being unclear: "Since the freezing point is property dependent, not on solute, but on solvent, proportional to a mole number of the solvent, what is required for obtaining a desired freezing point is a proper combination of above parameters" (page 9, line 17). "The evaporator 34, mounted in the cavity 11, for an example, adjacent to the device chamber 12, makes the refrigerant expanded to a low pressure at the expansion device 33 heat exchanges with air in the cavity, to evaporate the refrigerant" (page 11, line 19). Lastly, the phrase "in a state" as used on page 16, line 3 and on page 17, line 18 is utilized in the wrong grammatical format.

Claim Rejections - 35 USC § 112

4. Claims 4, 14, 16, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 4, the front plate needs to be described more specifically. It is unclear what this plate is and its purpose in the invention. Claim 14 describes a shaking case with many holes in the cavity for rotating but it is confusing how these holes rotate in relation to the rotation shaft. In addition, claim 16 describes a body with many holes but there is no description of what the body represents within the shaking case. Lastly, claim 22 describes an elevating plate in relation to the cold accumulation pack as well as for moving up/down but it is confusing how the plate and base are placed in the frame as well as their purpose.

Double Patenting

5. Claims 1-13, 15, 17-21, and 24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,691,530. Lee et al. has previously claimed a case having an inside space divided into a cavity 11 and a device chamber 10 and/or 19. There is also a cavity door 27 on the front part of the case for opening/closing the cavity, which is hinge coupled to one side of the case. Lee et al. has also claimed the idea of bringing a cold accumulation pack 17 into contact with a drink container 7, and shaking the cold accumulation pack 17 and the drink container 7 together, to cool down the drink in the container. There is a refrigerating system inside the case for cooling the cold accumulation pack as shown in figure 15. An insulating material 76 is attached to the inside surface of the wall of the cavity. Within U.S. Patent No. 6,691,530, claims 1, 2, and 8-12 can be referred to in relation to the preceding statements.

6. In the previous patent, Lee et al. includes a compressor 75 for compressing and transferring refrigerant, a condenser 77 for condensing transferred refrigerant, expansion device 79 for expanding condensed refrigerant, and an evaporator 73 for cooling the cavity by using a heat absorption reaction taking place when the expanded refrigerant is evaporated. As shown in figure 15, the condenser and compressor are in the device chamber. Although it is not explicitly stated, it can be considered obvious for the refrigerating system to include a fan for blowing air to the compressor 75 and the condenser 77. This technique is utilized frequently in this art in order to disperse the air throughout the system. For the fan to be effective it would be obvious to include an air

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inlet adjacent to the fan for introducing external air into the device chamber as well as an air outlet adjacent to the compressor 75 and the condenser 77 for discharging the air cooled the compressor 75 and the condenser 77 to an exterior. This can be shown in the block diagram within figure 15. It is also obvious to use this same fan for supplying cold air around the evaporator 73 to the cold accumulation pack 17. Figure 15 displays an evaporator placed within the cavity. Within U.S. Patent No. 6,691,530, claims 5-7 can be referred to in relation to the preceding statements.

7. Lee et al. had previously stated that the cold accumulation pack 17 would be a soft bag for storing material for being cooled down to a low temperature by the refrigerating system. The previous patent states that the cold accumulation material may be either ethyl alcohol or saline. Saline is equivalent to a solution of sodium chloride, therefore, it would have a freezing point in a range of -7 deg. C ~ -20 deg. C. Within U.S. Patent No. 6,691,530, claims 4,6, and 29 can be referred to in relation to the preceding statements.

8. In the previous patent, Lee et al. had included a motor that has a reversible rotation shaft 57 and the cold accumulation pack 17 in shaking case 10 for being brought into close contact with the container 7 introduced into the shaking case, and rotating with the container in order to cool down the drink. A rotation guide 45 having circular outside surface surrounds the shaking case 10. Lee et al. also include a plurality of rollers 55 in the cavity 13 in contact with the rotation guide for supporting the shaking case 10, and rotating with the container 7 as shown in Figure 10B and 16. This shaking case also has a door 63 for opening/closing the front and upper parts of the

body. Within U.S. Patent No. 6,691,530, claims 12-14, 17, and 19 can be referred to in relation to the preceding statements.

9. The previous patent has shown the accumulation pack 17 to be mounted on an underside of the shaking case 10 in a soft state and on a bottom surface of the body. Cold accumulation packs 17 are around a frame within the cavity in order to surround an outside surface of the container 7 from opposite sides. It is considered obvious that these cold accumulation packs are formed of a soft material for free deformation in conformity with the outside shape of the container 7. Within U.S. Patent No. 6,691,530, claims 1-2, 9, 17, and 25 can be referred to in relation to the preceding statements.

10. The shaking device 19, as shown in Figure 6, including motor 31 or driving motor 31 connected to one side of the frame 33 for rotating the frame in left or right direction, or moving the frame back and forth. The frame has a base 23 having one surface the cold accumulation pack 17 fixed thereto, and one side the shaking device 19 connected thereto. It can be considered obvious to the ordinarily skilled artisan to include a screw parallel to the guide member to be rotatable following rotation of the driving motor 31. It is also obvious to include a nut fixed to the elevating plate and engaged with the screw. Within U.S. Patent No. 6,691,530, claims 10-15, 17, 21, and 30 can be referred to in relation to the preceding statements.

11. Claims 14 and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,691,530 in view Gjersvik (6,314,751). While Lee et al. has already claimed most of the limitations of the claims, they do not explicitly teach the aspect of a shaking

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case with many holes. However, Gjersvik teaches a shaking case 20 with many holes 40 in the cavity for rotation following rotation of the rotation shaft S. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take a shaking case with many holes taught by Gjersvik to be combined with Lee et al.'s previous invention.

12. Claims 22 and 23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,691,530 in view Gjersvik (6,314,751), and further in view of Cretzmeyer, III (4,580,405). While Lee et al. has already claimed most of the limitations of the claims, they do not explicitly teach the aspect of using an elevating device for moving a plate up/down. However, Cretzmeyer, III teaches an elevating plate 48 for moving up/down in a space over or under the base 12. He also teaches an elevating device 42 for moving the elevating plate 48 up/down. Guide members 30 and 32 are each standing on the frame 20 vertically and extended to pass through the elevating plate 48. The motor 31 used in Lee et al.'s previous patent can be utilized as a driving device for moving the elevating plate 48 in an up/down direction along the members. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the elevating device taught by Cretzmeyer, III as well as the shaking case with many holes taught by Gjersvik to be combined with Lee et al.'s previous invention.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bryant (4,164,851) teaches a device for cooling that includes two rollers for supporting and rotating the beverage container.
- Kucza (4,715,195) teaches a container for cooling other containers comprising a bag holding liquid for surrounding a container as well as a refrigeration unit for cooling the liquid.
- Niehaus (6,502,406) teaches a device for cooling beverages with insulated casing. This invention includes a cooling volume forming a tub that surrounds the beverage container.
- Pattee (5,966,964) teaches a beverage-cooling appliance that includes a base with rollers and a motor for rotation of the beverage.

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Doerrler whose telephone number is 703-308-0696. The examiner can normally be reached on Monday-Friday, 6:30 – 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on 703-308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Will C Drenth